

“OVERHEAD COST IN CONSTRUCTION INDUSTRY”

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ABSTRACT

Nowadays, the construction industry is becoming highly competitive which causes general contractors to bid with a very small margin of profit. At the same time, overhead costs are always increasing and never go down of its own. Overhead costs are extremely important in construction estimation. Neglecting overhead has forced some contractors out of business, because these cost constitute a significant portion of the total construction cost. Hence it is important to control overhead cost. Construction projects become complicated and fragmented so that many specialty contractors are involved. In such changed environments, a general contractor's overhead costs are increasing comparable to direct costs. In addition to an increase of volume, activities consisting of overhead costs play an important role in coordinating different participants who include different specialty contractors and client.

The paper discusses the actual definition of overhead cost, contractor awareness about overhead cost, percentage of OH costs, changes in overhead cost, causes of increased overhead cost in construction industry, contractors perception about overhead cost, control of overhead cost.

KEYWORDS: Market Economy, Construction, contractor awareness, Expanding Business

INTRODUCTION

OH costs are those charges which cannot be attributed exclusively to a single product or service, or the summary of expenses that benefit more than one cost objective. A third definition is that OH costs are those costs which are not a component of the actual construction work but are incurred by the contractor to support the work.

At all times, high efficiency and total cost management are fundamental to success in any free market economy, which has been the case in India since the start of the five year development plans thirty years ago. However, the issue becomes extremely important with the emergence of a global economy and the free trade agreements that are expected to be implemented in the near future. Under these conditions, contractors will be compelled to trim out the fact that has accumulated during more comfortable times and find ways of reducing OH burden no billable costs. In the light of this discussion, the importance of studying OH costs cannot be under-estimated.

Taylor (1994) indicated that “in the competitive environment of today's construction industry, the difference of a single percentage point can be the difference between winning and losing a bid, making a profit, or bankruptcy”. Under such an environment, the logical way to remain competitive is to attempt to control and decrease costs, without jeopardizing the quality of provided services.

The objective of this report is to evaluate the overhead costs practices of construction companies. Several aspects will be examined that include contractor awareness, percentage of company OH costs to annual construction volume

OVERHEAD COST

There are, however, two types of OH costs in construction Company OH costs and Project OH costs. Company OH cost, is also called general and administrative OH, includes all costs incurred by the construction firm in maintaining the firm in business and supporting the production process, but are not directly related to a specific project. Company OH costs differ significantly from time to time but vary from 8 to 15% of the total construction volume. Project OH cost is also called job site overhead or general condition. It is the cost specific to a project, but not specific to a trade or work item. Project OH costs comprise the contractor's expenses in managing the project at the job site.

Causes of Increased Overhead Costs

Delayed payments: This factor affects company OH in two ways. First, it forces a contractor to look for external financial support which means additional company OH costs. Second, delayed payments affect the bid/no bid decision. When contractors decide not to bid because of delayed payments, the rate and the effect of company OH become larger even if its magnitude remains the same. Its effect becomes damaging because the no bid decision implies fewer projects which means company OH costs are not distributed among sufficient projects.

Lack of New Project

If there are not enough new projects, then the level of competition among contractors becomes seriously sharp, which not only reduces profit margin but also makes contractors delay the issue of recovering company OH costs hoping for another chance to recover them. Again, this cause may not lead to a direct increase in company OH costs but it makes existing OH costs more damaging to the company. Nevertheless, lack of new projects may directly lead to an increase in company OH costs because lack of projects strongly affects the decision of down-sizing and its accompanied costs. One important example in this situation is the financial loss accompanying a contractor's decision to liquidate his assets such as equipment, camps, or workshops.

Cost Inflation

Contractors think that inflation is the third cause for increased company OH costs. Company OH consumes many different types of commodities and services which in general transfers overall inflation rate to company expenses.

Government Regulation

Government regulations came as the fourth reason for increased company OH costs. Increased costs to recruit manpower from abroad and work legal in the Kingdom have affected company OH costs as many contractors consider such costs a company OH cost.

Firm's Growth

Company's strategy regarding expanding to new working horizons or even shrinking to a smaller size company has significant accompanying costs. Expanding construction activities may involve recruiting more manpower, expanding head office, buying more equipment, or negotiating loan. On the other hand, down-sizing involves getting rid of surplus manpower, reducing or changing head office, or liquidating equipment and batching plants which usually takes place in bad times leading to high company OH costs.

Client Related Requirements

It is true that most company OH costs are not related directly to project requirements and thus are not related to client requirements. However, there are instances where a project needs certain equipment or other costly items which cannot be exclusively recovered by including their costs in the project at hand. Such costs are treated as a company OH cost. The result of the survey regarding this point sets it in the sixth positions a reason for increased company OH costs.

Increased Spending on Marketing

It is normal for construction firms to look for new clients because only a limited number of clients will be continuously involved in building projects. Also, during recession many contractors will put their full efforts into finding new markets which involves extra spending. Increased spending on marketing came in the seventh and last place among factors leading to increased company OH costs.

Wrong Management Decisions

It is considered that the inter-organization mistakes are also a source for increased OH costs. Wide spectrums of examples are inefficiency in managing company head office and improperly expanding business.

Controlling OH Costs

Controlling overhead costs should always be an important management concern. Contractors can control OH costs through some traditional common sense measures that significantly reduce OH costs because these measures are easy to practice on a day-by-day level without special arrangements.

Following Are Some of These Measures

- Contractors need to be better informed about OH costs through short courses, seminars, professional and scientific societies. Contractors should be aware of the benefits of reduced company OH costs to their organization and to the construction industry. Less OH means more efficient organization.
- Contractors should, practically speaking, plan to maintain optimal levels of company OH costs, thus reaching two objectives at the same time: to eliminate unneeded spending and to be able to secure or increase the firm's market share in accordance with its strategic objectives.
- Contractors are recommended to establish cost control plans to help reduce company OH costs. Such plans should contain cost objectives, implementation steps, monitoring, and corrective actions.
- Maintaining sound safety programs helps reduce insurance costs.
- Customer satisfaction helps in maintaining good reputation, which helps in obtaining loans and other financial services at lower costs.
- Applying the right combination of resources, which allows maximum utilization of company head office manpower
- Increasing cost awareness among their employees, setting group cost targets with incentive plans and subsequently share the success with employees to motivate their interest in cost saving strategies.
- Maintaining customer satisfaction via a good reputation, this helps in obtaining loans and other financial services at lower costs.

- Applying the combination of resources, this allows maximum utilization of head office manpower.
- Contractors and project owners should try to resolve the problem of delayed payments in order to reduce financing costs.
- Contractors should implement cost control measures on supervision costs, equipment costs, temporary constructions, and financing costs as these items constitute the major project OH costs.
- Project owners should minimize OH related requirements in their contract documents so that project OH costs can be reduced. This would be of reciprocal benefit to project owners.

Research Methodology

Data needed for this research was collected via a questionnaires that was developed based on a through review of the related literature to reflect the existing level of OH cost and how contractors deal with them

DATAANALYSIS AND DISCUSSIONS

OH Cost

The main purpose of this question is to examine the level of contractors' awareness regarding the basic meaning of the OH cost. Results show that 64 % of the contractor did not properly define OH costs and mentioned examples of OH costs. Another 23% of the defined OH cost with a reasonably accurate definition by stating that OH cost is not part of the actual construction production cost but is an indirect cost.

Only 13 % of the contractor has properly define the OH cost, which can be sensed in their definition especially by stating that OH cost is an indirect construction cost which cannot be attributed to a single cause (project or activity) and also by stating that there are two types of OH cost which are company and project OH costs.

Types of OH Costs

It is seen that majority of contractor with about 87% differentiate company OH and project OH costs. However, the remaining percentage considers all OH costs alike.

Percentage of OH Costs

It was stated in the literature that the total OH costs do not usually exceed 15% of the annual construction volume in the India. However, the results show that only 48% of the contractors have 15% OH costs or less. The remaining 52% have a higher percentage, indicating that OH costs present a serious challenge. The calculated overall percentage is 16.83.

Contractors' Perception Regarding OH Costs

The majority of contractors put in plain words the following:

- Current rate of OH costs is not acceptable.
- Uncontrolled OH costs can badly affect the performance.
- OH costs were not important in the past.
- OH costs can be monitored and controlled.

These results indicate that the majority of contractors are not satisfied with OH cost and they are facing problems in managing them. This should encourage contractors to investigate the issue in an effort to reduce the negative effect of OH cost.

Changes in OH Costs

Results on whether contractors believe that OH has increased or decreased lately are shown in Table 1. It is clear that the majority of contractors think that company OH costs have increased during the past years.

Table 1

TREND	FREQ.	PERCENT
Increased	47	77
Decreased	08	13.2
Didn't Change	06	9.8

Reasons for Increased OH Costs

Knowing the major sources of high company OH costs helps in concentrating efforts towards specific causes. Seven potential causes were identified from the literature and a pilot study, and evaluated as shown in Table 2. In evaluating these factors it should be noted that some causes of increased company OH costs are inter-related, which makes it difficult to evaluate them individually. Looking at results, causes of increased company OH costs can be arranged in their order of effectiveness as follows:

Table 2: Reasons for Increased Company OH Costs Controlling Company OH Cost

Reason for Increased Co. OH Costs	5	4	3	2	1
A) Lack of new projects (recession)	27 44%	15 25%	06 10%	07 11%	06 10%
B) Cost inflation	14 23%	19 32%	13 21%	10 16%	05 08%
C) Delayed payments	24 39%	18 30%	11 18%	06 10%	02 03%
D) Government regulation	10 16%	19 31%	20 34%	05 08%	07 11%
E) Increased marketing cost	17 28%	06 10%	17 28%	11 18%	10 16%
F) Client related reasons	19 31%	10 16%	12 20%	05 08%	15 25%
G) Firm's growth	23 37%	04 07%	16 26%	03 05%	15 25%
H) Other (internal mistakes)	00 0%	08 42%	06 32%	05 26%	00 00%

5 = strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1= strongly disagree

This question asks contractors to specify efforts taken to reduce or control OH costs. Results are summarized in Table 3:

Table 3: Rate of Applying Steps to Reduce OH Costs

Efforts to Reduce OH Costs	Frequency	Percent
A) No efforts are Exerted	14	23
B) Steps are taken To reduce co. OH	47	77

Results in Table 3 indicate that 77 percent of the contractors do apply a cost control plan for co. OH costs. In the second part of this question contractors were asked to explain their cost control plans. Answers can be divided into two groups. First, the majority of contractors (87 percent) explained their cost control plans as an instantaneous decision aimed at cutting OH costs which came as a reaction to high OH rates. Such actions cannot be called a cost control plan as they are not part of a comprehensive understanding of the issue.

CONCLUSIONS

The unstable construction market makes it difficult for contractors to decide on the optimum level of OH costs that enables contractors to win and administer large projects and at the same time does not financially drain the company. Causes of increased overhead costs include delayed payments, lack of new projects, cost of inflation and government regulations. Factors affecting company OH costs include the following: automobile and equipment costs, head-office expenses, labor related costs and financing costs. Results of the survey show that average overhead cost is slightly higher than the ratio reported in the literature.

REFERENCES

1. Cokins, G. (1996). *Activity-based cost management making it work: a manager's guide to implementing and sustaining an effective ABC system*, Irwin Professional Publishing,
2. Burr Ridge, IL. Holland, N. and Hobson, D. (1999). "Indirect cost categorization and allocation by construction contractors." *Journal of Architectural Engineering*, ASCE, 5(2) 49-56.
3. Horngren, C.Y., Foster, G. and Datar, S. M. (1999). *Cost Accounting*, 10th edition, Prentice Hall, Upper Saddle River, NJ, 906pp.
4. Johnson, T. and Kaplan, R. (1987). "Rise and fall of Management Accounting." *Management Accounting*, IMA, January, 22-30.
5. Kim, Y. and Ballard, G. (2001). "Activity-Based Costing and its Application to Lean Construction", *Proceedings of the 9th Annual Conference of the International Group for Lean Construction*, Singapore.
6. Miller, J. A. (1996). *Implementing activity-based management in daily operations*, John Wiley & Sons, New York, NY.